



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF HAZARDOUS WASTE MANAGEMENT
 LANCE R. MILLER, DIRECTOR

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CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. P 905-518-312

APR 18 1991

Cris Anderson, Manager
 Environmental Affairs
 L.E. Carpenter Company
 1301 E. Ninth Street, Suite 3600
 Cleveland, OH 44114

Dear Mr. Anderson:

Re: L.E. Carpenter ACO dated September 26, 1986
 Supplemental RI dated November 1990
 Data Validation Review, Sampling August 29, 1990

Below please find the results of New Jersey Department of Environmental Protection (Department) quality assurance review that will bear on the conclusions drawn for the Supplemental RI (SRI). Any rejected results can not be included in make conclusions and the qualified ones must be used with caution.

<u>Field ID.</u>	<u>Laboratory Sample ID.</u>	<u>Analyses Performed</u>
TP-82C	023	PCB
TP-89	042	VOA, BN, PCB
TP-85C	031	VOA, BN, PCB
TP-85CDL	031 (dilution)	BN
SS-10	004	VOA
SS-10-2	006	VOA
TP-82-2 (Field Blank)	036	VOA, BN, PCB
TP-82-3 (Field Blank)	037	VOA

The Department has reviewed the above mentioned samples for Volatile Organics and Base Neutral Compounds according to USEPA CLP SOW, No. 2/88 (Revision 5/89) and for Polychlorinated Biphenyls (PCBs) according to USEPA Method SW846, Third Edition. Please refer to the detailed data validation report and the Target and Non-Target Summary for additional information. The quality assurance review of the the data is summarized below.



General Comments

The Custody Transfer Record/Laboratory Work Request did not detail the analytical methodology required for each analytical fraction. The laboratory analyzed the volatile organic and base neutral fraction according to USEPA CLP SOW, No. 2/88 (Revision 5/89) and the PCB fraction according to USEPA Method SW846, Third Edition. Therefore, QAS reviewed each analytical fraction according to the analytical method used by the laboratory.

Volatile Organic Fraction

The compound is 2-butanone is rejected for samples TP-82-3, TP-82-2, SS-10-2 and SS-10 because the average relative response factor (RRF) was less than 0.05.

The Extracted Ion Current Profile (EICP) area for internal standard compound chlorobenzene-d5 in sample TP-89 was less than 50 percent of the EICP area in continuing calibration file AX9502. Therefore, due to the low bias, all positive and non-detected values associated with internal standard compound chlorobenzene-d5 quantitatively qualified as estimated.

Base Neutral Fraction

For sample TP-85CDL, the laboratory reported zero percent recoveries for base neutral surrogate compounds nitrobenzene-d5, 2-fluorobiphenyl, and terphenyl-d14 to a 1/500 dilution. Therefore, the analytical results for sample TP-85CDL are rejected.

The EICP area for internal standard compound perylene-d12 in sample TP-82-2 was less than 50 percent of the EICP area in continuing calibration file S090702. Therefore, all non-detected values associated with internal standard compound perylene-d12 are quantitatively qualified.

The laboratory performed a 1/5 and 1/20 dilution for samples TP-85C and TP-89, respectively. The Contract Required Quantitation Limit (CRQL) are elevated due to the dilutions. Therefore, the end-user should be notified of possible contamination below the reported detection limits.

PCB Fraction

The percent Relative Standard Deviation (RDS) for the aroclor 1254 initial calibration on instrument #09 dated 09-19-90 through 09-20-90 exceeded the quality control limit. Therefore, the positive value for aroclor 1254 in sample TP-89 is quantitatively qualified as estimated.

The percent difference in calibration factors for aroclor 1254 continuing calibration standard dated 09-16-90 time 11:37 exceeded the quality control limits for a primary analysis. Therefore, the positive results for aroclor 1254 in samples TP-82C and TP-85C are quantitatively qualified as estimated.

In the Primary and Confirmation Analyses, a retention time shift for Dibutylchloride (DBC) was noted in the aroclor 1254 continuing

calibration standards. QAS determined that the DBC retention time shift was not critical because pattern identification is used to qualitatively identify PCBs.

For sample TP-85C, the aroclor 1254 pattern exhibited offscale peaks in the confirmation chromatogram. This did not affect the data since QAS was able to qualitatively identify the aroclor 1254 compound with confidence on the primary column.

Specific Comments

Target and Non-Target Compound Summary

Site Name: L.E. Carpenter
Non-Aqueous Samples Collected
on 29 August 1990.

Sample	Analyte	Method Blank Conc.	Lab Report Conc.	QAS Repot Conc.	QAS Decision	Footnotes
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Sample TP-82-3, Trip Blank, low, ug/l

Volatile Organic Fraction

methylene chloride	9.0	12	12B	negate	4
2-butanone	U	10U	---	reject	3

Sample TP-82-2, Field Blank, low, ug/l

Volatile Organic Fraction

methylene chloride	11	19	19B	negate	4
2-butanone	U	10U	---	reject	3

Base Neutral Fraction

All non-detected base neutral compounds associated with internal standard perylene-d12 are quantitatively qualified because the EICP area for internal standard perylene-d12 was less than 50 percent of the EICP area in the continuing calibration.

Polychlorinated Biphenyls Fraction

None detected.

Sample SS-10-2, Field Blank, low, ug/l

Volatile Organic Fraction

methylene chloride	9.0	12	12B	negate	4
2-butanone	U	10U	---	reject	3

Sample SS-10, low, ug/l

Volatile Organic Fraction

methylene chloride	5.0	29	29JB	qualify	1,6
acetone	12	47	47JB	qualify	1,5
2-butanone	U	12U	----	reject	3

Sample TP-82C, low, ug/kg

Polychlorinated Biphenyls Fraction

aroclor 1254	U	110J	110J	qualify	1,9
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Sample TP-85C, low ug/kg

Volatile Organic Fraction

methylene chloride	7.0	80	80JB	qualify	6
acetone	9.0J	150	150JB	qualify	6
tetrachloroethene	U	8.0	8.0		
ethylbenzene	U	67	67		
xylene (total)	U	140	140		

Base Neutral Fraction, (1/5 dilution)

butylbenzylphthalate	U	2000J	2000J	qualify	2
bis(2-ethylhexyl)- phthalate	U	350000JE	350000JE	qualify	8
di-n-octylphthalate	U	8100	8100		

Polychlorinated Biphenyls Fraction

aroclor 1254	U	760	760J	qualify	1
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Sample TP-850CDL, (1/500 dilution), low, ug/kg

Base Neutral Fraction

The analytical results for sample TP-85CDL are rejected because the laboratory reported zero percent recoveries for surrogate compounds nitrobenzene-d5, 2-fluorobiphenyl and terphenyl-d14 due to a 1 to 500 dilution.

Sample TP-89, low, ug/kg

Volatile Organic Fraction

All non-detected values associated with internal standard chlorobenzene-d5 are quantitatively qualified because the EICP area for internal standard chlorobenzene-d5 was less than 50 percent of the EICP area in the continuing calibration.

methylene chloride	7.0	72	72JB	qualify	6
acetone	9.0J	310	310JB	qualify	6
2-butanone	U	17J	17J	qualify	1,2
toluene	U	4J	4J	qualify	2,7
ethylbenzene	U	26	26J	qualify	7
xylenes (total)	U	130	130J	qualify	7

Base Neutral Fraction (1/20 dilution)

bis(2-ethylhexyl)- phthalate	U	80000	80000		
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Polychlorinated Biphenyls Fraction, (1/10 dilution)

aroclor 1254	U	2200J	2200J	qualify	1,9
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Target and Non-Target Compound Summary List

FOOTNOTES:

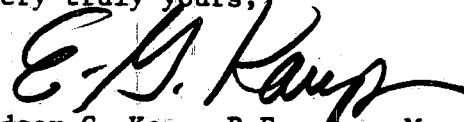
1. The reported concentration is quantitatively qualified due to calibration deficiencies.
2. The reported concentration is quantitatively qualified because the concentration is below the CRQL.
3. The reported value is rejected because the calibration response factor for the analyte is less than 0.05.

4. The value reported is less than 3x the value in the method blank. It is the policy of NJDEP-DHSM to negate the reported value due to probable foreign contamination unrelated to the actual sample. The end-user, however, is alerted that a reportable quantity of the analyte was detected.
5. The value reported is between 3x and 5x the value in the method blank and may be due to possible foreign laboratory/field contamination unrelated to the actual sample. The value reported is not negated.
6. The value reported is greater than five (5) times the value in the method blank and is considered "real". However, the reported value must be quantitatively qualified "J" due to the method blank contamination. The "B" qualifier alerts the end-user to the presence of this analyte in the method blank.
7. The internal standard area did not meet the QC criteria. Therefore, all results using this internal standard for quantitation are quantitatively estimated.
8. The target compound exceeds the calibration range of the instrument. Therefore, the compound is quantitatively qualified "J" as estimated and an "E" qualifier is used to indicate that the compound is outside of the linear range of the instrument.
9. The reported concentration is quantitatively qualified because the concentration is below the Method Detection Limit.

Please review these validation results and respond to the Department within ten (10) working days with comments on their effect on the SRI and their disposition.

Should you have any questions, you may contact me at (609) 633-1455.

Very truly yours,



Edgar G. Kaup, P.E., Case Manager
Bureau of Federal Case Management

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Enclosure

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